



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/759,521	01/16/2001	Thomas Wiebke	2001_0032A	2128

513 7590 03/08/2004

WENDEROTH, LIND & PONACK, L.L.P.  
2033 K STREET N. W.  
SUITE 800  
WASHINGTON, DC 20006-1021

EXAMINER

PEZZLO, JOHN

ART UNIT	PAPER NUMBER
----------	--------------

2662

DATE MAILED: 03/08/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/759,521

Applicant(s)

WIEBKE ET AL.

Examiner

John Pezzlo

Art Unit

2662

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1,2,4-18,20-29 and 31-51 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 20 and 34 is/are allowed.
- 6) ☒ Claim(s) 1,2,4-18,21-29,31-33 and 35-51 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 6.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_.

## DETAILED ACTION

### *Claim Rejections - 35 USC § 102*

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(e) the invention was described in-

(1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effect under this subsection of a national application published under section 122(b) only if the international application designating the United States was published under Article 21(2)(a) of such treaty in the English language; or

(2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that a patent shall not be deemed filed in the United States for the purposes of this subsection based on the filing of an international application filed under the treaty defined in section 351(a).

I. Claims 1, 2, 4-12, 17, 18, 21-24, 31, 32, 35-38, and 41-50 are rejected under 35 U.S.C. 102(e) as being anticipated by Ovesjo et al. (US 6,108,369) hereinafter Ovesjo.

1. Regarding claims 1 and 17 and 43 and 44 - Ovesjo discloses transmitting signals in a CDMA cellular radio transmission system, refer to column 1 lines 9 to 30.

Ovesjo discloses modulating a source signal with a channelization code having a length corresponding to a spreading factor to form a signal intended for transmission over the radio link, refer to Figure 1A and column 1 lines 46 to 67 and column 2 lines 5 to 16 and column 2 lines 39 to 56 and column 4 lines 39 to 67 and column 5 lines 1 to 15.

Art Unit: 2662

Ovesjo discloses adapting the spreading factor for use in said modulation step, refer to Figures 2-4 and column 5 lines 15 to 67 and column 6 lines 1 to 52.

Ovesjo discloses utilizing the control channel to transmit the spreading factor over the RF link to the receiver, refer to column 3 lines 60 to column 4 line 40.

Ovesjo discloses that the system is a CDMA cellular radio transmission system, refer to columns 1 and 2.

2. Regarding claims 2 and 18 - Ovesjo discloses determining the availability of channelization codes in the system, refer to Figures 3 and 4 and column 3 lines 2 to 34 and column 5 lines 45 to 67 and column 6 lines 1 to 52.

Ovesjo discloses adapting the spreading factor on the basis of the determined availability of the channelization codes, refer to Figures 3 and 4 and column 3 lines 2 to 34 and column 5 lines 45 to 67 and column 6 lines 1 to 52.

3. Regarding claims 4 and 21 and 31 and 35 - Ovesjo discloses encoding the source signal prior to modulation with a forward error correction (FEC) and adapting the FEC code rate, refer to column 2 lines 29 to 56.

4. Regarding claims 5 and 22 and 36 - Ovesjo discloses that the FEC code rate is adapted in accordance with the determined availability of the channelization codes or the adapted spreading factor, refer to Figures 3 and 4 and column 2 lines 29 to 56 and column 3 lines 2 to 34 and column 5 lines 45 to 67 and column 6 lines 1 to 52.

Art Unit: 2662

5. Regarding claims 6 and 32 - Ovesjo discloses signaling the FEC code rate over the radio link, refer to column 3 lines 60 to 67 and column 4 lines 1 to 30 and column 5 lines 15 to 44.
6. Regarding claims 7 and 23 and 37 and 41 and 42 and 45-50 - Ovesjo discloses that the spreading factor or code rate is carried out in accordance with a measurement of a parameter of channel quality, interference, system capacity, transmit power or link quality, refer to Figure 3 and column 2 lines 17 to 29 and column 3 lines 17 to 34 and column 4 lines 41 to 67 and column 5 lines 45 to 67 and column 6 lines 1 to 5. Ovesjo incorporates by reference, Dahlman (US 5,896,368), which describes idle slots or times in which RF link parameters are measured, refer to Figure 3B and column 4 lines 10 to 29 and column 8 lines 60 to 65 and columns 9 and 10.
7. Regarding claim 8 - Ovesjo discloses that the measurement is reported from the receiver to a transmitter on request or periodically, refer to Figure 1A and column 3 lines 60 to 67 and column 4 lines 1 to 40 and claim 9.
8. Regarding claim 9 - Ovesjo discloses that the adaptation step for the spreading factor or FEC code rate is carried out on an individual basis for at least one user of the system, refer to Figure 1A and column 2 lines 40 to 55 and column 4 lines 30 to 40.
9. Regarding claim 10 - Ovesjo discloses that the adaptation step for the spreading factor or FEC code rate is carried out on the basis of a comparison of an estimated system parameter value calculated for the current code rate or spreading factor with a predicted system parameter value

Art Unit: 2662

calculated for the code rate or spreading factor after a potential change, refer to Figure 1A and column 4 lines 40 to 67 and column 5 lines 1 to 15.

10. Regarding claim 11 - Ovesjo discloses that the adaptation for the spreading factor or FEC code rate is carried out in accordance with an adaptation of an information bit rate of the source signal, refer to column 1 lines 47 to 67 and column 2 lines 5 to 55 and column 3 lines 60 to 67 and column 4 lines 1 to 30.

11. Regarding claim 12 - Ovesjo discloses that the adaptation step for the spreading factor or FEC code rate is carried out in accordance with a properties of a retransmission algorithm, refer to Figure 1A and column 3 lines 60 to 67 and column 4 lines 1 to 40 and claim 9.

12. Regarding claims 24 and 38 - Ovesjo discloses that the transmitter is embodied as a base station, refer to Figure 1A and column 4 lines 30 to 65 and column 5 lines 1 to 15.

II. Claims 13-16, 25-29, 33, 39, 40, and 51 are rejected under 35 U.S.C. 102(e) as being anticipated by Dahlman et al. (US 6,222,875 B1) hereinafter Dahlman.

1. Regarding claims 13 and 25 - Dahlman discloses receiving a modulated signal transmitted over a radio link, refer to Figure 2 and column 4 lines 50 to 67 and column 5 lines 1 to 30.

Art Unit: 2662

Dahlman discloses determining the spreading factor used in an adaptive manner for modulating the received signal, refer to Figure 1 and column 4 lines 8 to 49.

Dahlman discloses demodulating the received signals using the determined spreading factor with a channelization code having a length corresponding to the spreading factor, refer to Figures 1, 3, 4 and 5 and column 4 lines 8 to 50 and column 5 lines 25 to 67 and column 6 lines 1 to 25.

2. Regarding claims 14 and 26 - Dahlman discloses determining the FEC code rate used for encoding the received signals, refer to column 2 lines 15 to 50.

3. Regarding claims 15 and 27 and 33 and 39 and 51 - Dahlman discloses that the determination step includes receiving a transport format indicator indicating the spreading factor or the FEC code rate, refer to Figures 1 and 4 and column 2 lines 25 to 67 and column 3 lines 1 to 3.

4. Regarding claims 16 and 28 - Dahlman discloses that the determination step includes demodulating the transport format indicator in advance and for each frame of received signals, refer to Figures 1 and 4 and column 2 lines 25 to 67 and column 3 lines 1 to 3 and column 5 lines 30 to 67 and column 6 lines 1 to 25.

5. Regarding claims 29 and 40 - Dahlman discloses that the receiver is embodied as a mobile station, refer to Figure 1 and column 4 lines 8 to 35.

*Allowable Subject Matter*

Claims 20 and 34 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

*Response to Arguments*

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Applicant's arguments filed 8 December 2004 have been fully considered but they are not persuasive.

1. Applicants argue on pages 13 and 14 and of the response that the references, Ovesjo and Dahlman do not transmit a spreading factor as disclosed in claims 1, 13, 17 and 25. The examiner respectfully disagrees. Ovesjo and Dahlman disclose the use of a control channel (PCCH) and at least one data channel (PDCH), which comprises the RF link. Ovesjo and Dahlman disclose that the spreading factor information is transmitted dynamically on the control channel which is utilized by the receiver to demodulate and recover the information transmitted on the data channel, refer to Ovesjo, column 3 lines 60 to column 4 line 40, and Dahlman, column 3 line 51 to column 4 line 34. Ovesjo and Dahlman disclose that the transmission parameters are known a priori for the control channel not the data channel. The control channel parameters remain fixed, so that the dynamically changing spreading factor (and FEC) used on



Art Unit: 2662

the data channel can be send to the receiver, in order for the receiver to recover the information on the data channel.

2. Applicants argue that the FEC information is not sent from the transmitter to the receiver. The examiner respectfully disagrees. Both Ovesjo and Dahlman disclose changing the FEC, refer to Ovesjo, column 2 lines 29 to 39, and Dahlman, column 2 line 25 to column 3 line 8. Both references utilize the control channel, which is part of the RF link, to explicitly exchange information between the transmitter and the receiver to allow the receiver to demodulate the information sent on the data channel(s).

### *Conclusion*

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a).

Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Art Unit: 2662

Any inquiry concerning this communication or earlier communications from the examiner should be directed to John Pezzlo whose telephone number is (703) 306-5420. The examiner can normally be reached on Monday to Friday from 8:30 AM to 4:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hassan Kizou, can be reached on (703) 305-4744. The fax phone number for the organization where this application or proceeding is assigned is (703) 308-6743.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 872-9306.

Any response to this action should be mailed to:

Commissioner of Patents and Trademarks

Washington, D.C.

or faxed to:

(703) 872-9306

For informal or draft communications, please label "PROPOSED" or "DRAFT"

Hand delivered responses should be brought to:

Receptionist (Sixth floor)

Crystal Park 2

2121 Crystal Drive

Arlington, VA.

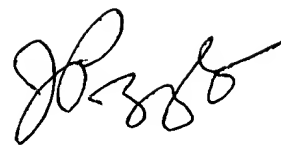
John Pezzlo

Application/Control Number: 09/759,521

Page 10

Art Unit: 2662

6 March 2004

A handwritten signature in black ink, appearing to read 'JPezzo', is written above the printed name.

**JOHN PEZZLO**  
**PRIMARY EXAMINER**